2011 Fall Survey Summary
Canyon Reservoirs

Jared Lorensen, Fisheries Biologist

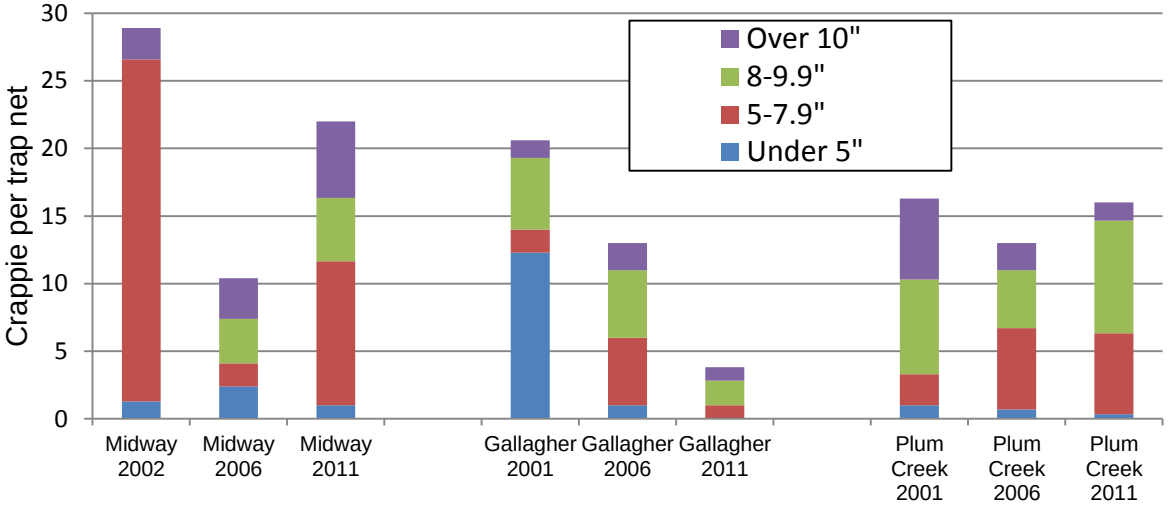
Midway, Gallagher and Plum Creek Reservoirs are generally referred to as the “Canyon Reservoirs”. They are located along the Central Nebraska Public Power and Irrigation District’s (CNPPID) Supply Canal between Cozad and Lexington. These reservoirs experience high flow rates that allow for unimpeded downstream fish movement. This factor makes fisheries management challenging but it also makes them unique fisheries. Access land-use maps of these reservoirs at http://www.cnppid.com/Project_Maps.htm.

The Canyon Reservoirs are sampled using experimental gill nets, a method commonly used to sample species found primarily in open water, such as walleye, white bass, channel catfish and hybrid striped bass. These nets are made of clear monofilament mesh strung between a weighted line and a floating line. This mesh ranges in size from ¾ of an inch to 3 inches and the nets are typically set perpendicular to the shoreline in 6 to 12 feet of depth during late afternoon with an orange floating buoy on the ends to deter boats from being entangled and for ease of retrieval. Gill nets create an invisible wall in the water column that fish cannot sense so they are entangled by their gills as they attempt to move through this mesh.

In addition to gill nets, trap nets are used to sample shoreline oriented species such as crappie. These nets are set perpendicular to the shoreline and entrap fish by funneling them through a narrowing frame covered in 5/8” braided mesh. NGPC staff tend these nets similarly to gill nets.

Data collected from these surveys allow biologists to evaluate the population density, size structure, and growth rates for several species. This data provides valuable information to guide decision making scenarios that include fish species stocked, stocking rates and fishing regulations. This information also assists Game and Parks staff in guiding anglers to waterbodies that have the desired populations for fishing.

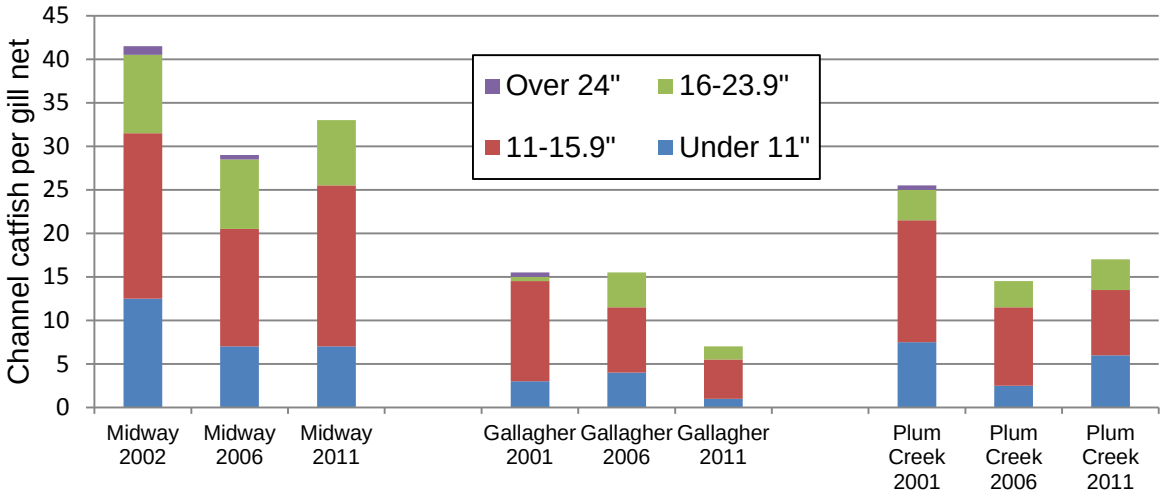
Crappie



The Canyon Reservoirs have areas of flooded timber and calm water. Crappie do well in all three of these waterbodies due to this habitat. The diverse size structures observed in their populations indicate self sustaining populations. The 2011 crappie data indicates improved crappie populations since the 2006 data with the exception of Gallagher. Anglers have the best success during spring but the fall crappie fishing can be productive on these lakes too.

The crappie regulation at the Canyon Reservoirs includes a daily bag limit of 15 (in conjunction with panfish species) and no length limit.

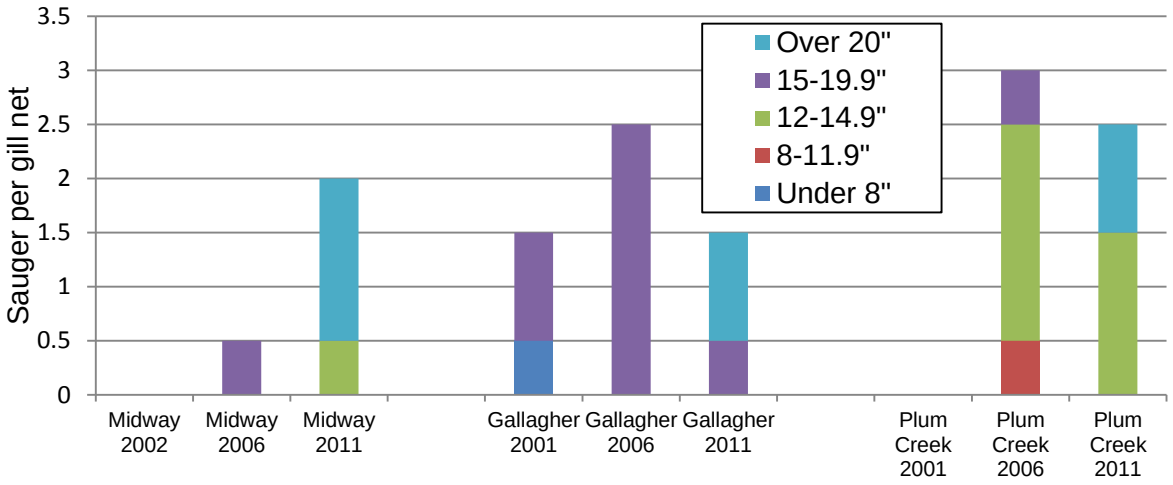
Channel catfish



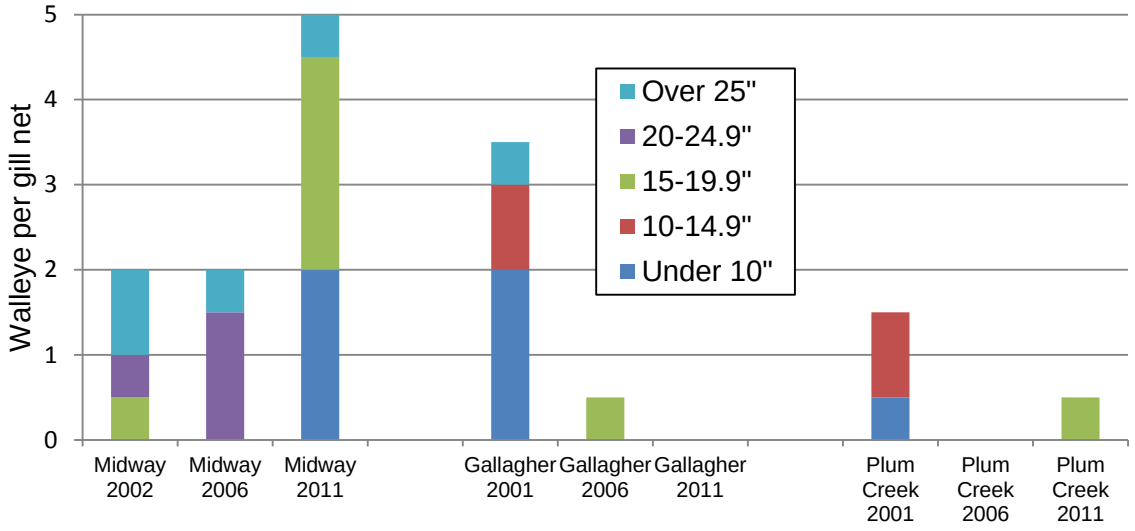
All three Canyon Reservoirs contain excellent populations of channel catfish. These populations are typically some of the strongest in Nebraska. Survey results indicate that Midway consistently has the highest net catch of the Canyon Reservoirs. Excellent spawning habitat and stable water levels allow for consistent reproduction and recruitment. The Canyon Reservoirs are known for producing large and trophy sized channel catfish.

The channel catfish regulation at the Canyon Reservoirs includes a daily bag limit of 5.

Sauger



Walleye



Sauger and walleye are present in all the Canyon Reservoirs. Attempts were made to improve the walleye fishery but stockings were discontinued as improvements were not observed. The remaining walleye populations are maintained by migration of upstream populations. Sauger may be better adapted to habitat present in the Canyon Reservoirs (high flows and turbid water). They have been stocked annually into the Canyon Reservoirs since 1998 and appear to be established in Gallagher, Plum Creek and Johnson Reservoirs. Natural recruitment of sauger has not been identified thus far. Trophy sized sauger (over 20") and walleye (over 25") were sampled at all three Canyon Reservoirs in 2011.

The walleye and sauger regulation at the Canyon Reservoirs includes a daily bag of 4 (in conjunction) with no more than one over 22". Access this online Fish Identification Tool for sauger identification help http://outdoornebraska.ne.gov/Fishing/guides/identification/default.asp.

For additional information about these fisheries please contact

Brad Newcomb, District Mgr. 308-865-5310, brad.newcomb@nebraska.gov

Jared Lorensen, Biologist 308-535-8025, jared.lorensen@nebraska.gov

Anglers and boaters need to be aware of **zebra and quagga mussels** while using Nebraska Lakes. While no mussels have been identified at the Canyon Reservoirs, zebra mussels have been found at Zorinsky Lake in Omaha and are present in several reservoirs in Kansas and Colorado and pose a serious threat to our waterbodies. Monitoring was completed at several Nebraska reservoirs during 2011 and no evidence of mussels were found.

Invasive mussels will attach to almost any surface and have detrimental impacts on industry (power plants, water intakes, irrigation, etc), native fish and mussels, and recreational users (fouling boat motors, impacting beaches, etc). Invasive mussels cause an estimated $5 billion per year in economic impacts in the United States for monitoring and control efforts. Inadvertent transfer by humans is the major source of new infestation for zebra and quagga mussels; primarily by boats, boat trailers, and fishing gear. Boaters and anglers are reminded that it is important to **Clean, Drain and Dry** their equipment and boats before moving to different bodies of water. Anglers and boaters are encouraged to educate themselves on these and other aquatic invasive species. Find more information concerning zebra and quagga mussels at http://snr.unl.edu/invasives/ and http://100thmeridian.org/zebras.asp.